

Director's Note

by Lee Lockwood
Co-Director

BOSKUG'S BULLETIN BOARD ON-LINE AT LAST

The phone number is 232-0919. Mark it down, enter it in your MDM740 phone library, put it on a function key, but do something to make yourself remember and use it (assuming you have a modem, of course).

So what is it, and what does it do?

It is two things: 1) a bulletin board; and 2) an RCP/M.

A bulletin board is a place where you can (electronically) leave or receive messages. They may be messages addressed to you personally or to anyone who wants to read them. They may be about anything related to computers, but the emphasis will be on news and views concerning Kaypro and its machines. The bulletin board will also carry late news about meetings and other BOSKUG functions and activities.

An RCP/M is a database from which you can download (and to which you can, if you choose, upload) programs and files. For us, it means that the important utilities and programs that until now were available only in the software library at meetings will now be capturable at any hour of day or night from the BOSKUG RCP/M. Moreover, they'll be the latest versions and configured for Kaypro when appropriate.

The RCP/M will also serve as a transmission point for submissions to The Kugel. Anyone wishing to submit an article (or a short note on something) can upload it to the editor. All files intended for The Kugel should be given the extension ".KGL."

As this column is being written, we're still revising the programs that run what we'll call from now on "the BOSKUG BB." We're entirely open to suggestions from the members about adding new features and improving the current ones.

Gratiam Agimus to Mike Bate and Mike Bartell for doing the lion's share of the work to get us running. Mike Bate it was who did most of the programming and assembling, while Mike Bartell has been central in designing how things operate. And Pat Withen, our noble host, has been laboring

hard to learn the ins and outs of Sysophood. (Or is it Sysopery?)

Elsewhere in this issue will be found some introductory matter on how to access and use the BOSKUG BB. We'll try to make this a regular tutorial feature in The Kugel.

We do ask you to take time to download all the help files and read them, and to learn your modem program thoroughly, so that you won't tie up the board any more than necessary during your learning experiences. If you have any questions about how things work, call Pat, either Mike, or myself. Try to keep your on-line tutorials to a minimum so that all can use the facility.

AXE FALLS ON TONY AMICO

An inevitable by-product of running a user group is that one develops a relationship with the manufacturer and with some of the people who work for him. As a user, I've often felt uncomfortable being among those people whose main concern is not how computers work or what they can do, but how to sell them. Yet, in the line of duty, so to speak, I've met several people from Kaypro, and have become friendly with a few of them.

About eighteen months ago, a man called saying that his name was Tony Amico and that he was the new district sales representative for Kaypro. We met. I knew right away that he was different when he said he was interested in supporting our user group, that he understood we were providing important services that his dealers should, but could not, supply. (Up until then, Kaypro had shown absolutely no desire to help us; in fact, they barely acknowledged our existence.)

I also suspected that Tony wouldn't last too long at Kaypro, since he was freely critical of some of their actions and policies which clearly deserved criticizing -- things like shipping new models to dealers without announcing them first, or changing the software bundle every second week -- but not by an employee, unless he happened to be blessed with an independent income.

Soon after, Tony came to a BOSKUG meeting and, called upon to speak, led off with the observation that we'd missed the boat with our name. "You really should have called yourselves the 'KGB' -- the 'Kaypro Group of Boston,'" he said, thereby endearing himself to me, at least, forever.

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THE BOSTON KUGEL

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PHONE CONSULTANTS

The following people have been volunteered to answer questions by phone. Questioners are asked to show consideration and limit their calls to before 9:30 p.m. Please tell us if we can add your name to this list.

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AD RATES

SIZE	DIMENSIONS	STANDARD RATE	BCS RATE
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1/4 Page	3.5 x 5	\$40	\$30
1/2 Page	7.5 x 5 or 3.5 x 10	\$70	\$55
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Deadline for the March issue is Feb. 15. Send camera-ready copy to: Karen Rockow, 345 Harvard St. #3B, Cambridge, MA 02138. Checks should be payable to: The Boston Computer Society.

MEMBERSHIP INFORMATION

BOSKUG, the Kaypro Users Group of the Boston Computer Society, is a volunteer group of Kaypro owners who have banded together to share information and solve problems related to their computers, accessories and software.

BOSKUG meets semi-monthly on the 2nd and 4th Tuesdays. Programs include lectures, panels, and hands-on workshops on software available for the Kaypro. Meeting notices are carried in the BCS monthly CALENDAR and in its bimonthly magazine, UPDATE.

To join BOSKUG, write the Boston Computer Society at 1 Center Plaza, Boston, MA 02108, or call (617) 367-8080. If you live more than 75 miles away and wish merely to subscribe to The Kugel, send \$10 for a year's subscription to BOSKUG, 27 Howland Rd., W. Newton, MA 02165. Foreign subscriptions: \$15.

from the editor...

We did something unique this issue; we came out on time. Even a little early!

We had begun to suspect last time around, with the concentration of articles on word processing, that The Kugel had a life of its own. Imagine our surprise when it emerged this time with a techie slant.

COMING UP

We didn't have space for a number of articles this issue. Our March-April issue will feature reviews of three graphics programs by Mike Drooker, Chip Adams and Sean Debardeleben, and round-up of WordStar books. Sean will also taking a look at MYCHESS from Software Toolworks, which so far has consistently trounced him. John Mordes has reviewed a database system for bibliographic citations. Sarah Wernick tells us more about SUBMIT and Charlie Bowen continues his series on making like a hacker. Mike Drooker will explain how PW can support parallel and serial printers simultaneously without swapping disks. And Bob Waters is cranking up the question and answer column.

NEEDED

Since Dave Hoag has been spending so much time in Washington and my hands are full, we desperately need an advertising manager. Most advertisers are extremely receptive, even anxious to advertise with us. It's a matter of setting aside a few hours each month to send out a mailing and make telephone calls. Any new ads will earn you a 10% commission.

We still need more articles about the Micropro bundle. We've started a new department this issue, "A-prompt," for short comments about your experiences -- good, bad and indifferent -- with retailers, products, etc. As the saying goes, "Don't get mad. Get even."

A style sheet will be available in short order to answer any questions you may have about submissions. Or phone me at 354-0124. Deadline for the next issue is Feb. 15. □

BOSKUG DOINGS

STATE OF THE LIBRARY REPORT

by Charlie Bowen
BOSKUG Software Librarian

For the first time in our history, we've established a means for those who can't come to our meetings to get disks from the BOSKUG library. Dan Chessman has become BOSKUG's first mail-order librarian. Orders for disks should be sent to:

BOSKUG Library
11 Conant Road
Chestnut Hill, MA 02167

The charge, which includes copying, disks, postage and mailing materials, is \$8.00 a disk to non-members of the Boston Computer Society, and \$6.00 to members. Distant non-members who have paid the \$10.00 KUGEL subscription fee are also eligible for the lower price. Please indicate your

status when you order, including your membership number if you belong to BCS. (If you're a KUGEL subscriber, please make sure to give us your name and address in the same form they appear on our list, so we can check without too much difficulty.)

To get a reasonably up-to-date list of what's in the mail-order library, send \$1.00 with your name and address to the address above.

We're making only the public-domain portion of the BOSKUG library available by mail. Updates of proprietary software can still be copied at meetings by those who can demonstrate their entitlement. We owe it to Kaypro and the manufacturers not to distribute this software casually.

But the public-domain sector is the biggest and in many ways most interesting part of the library, and all of it can now be yours at these low, low (but not so low you'll be tempted to skip meetings if you live nearby) prices! ☐

MEETING HIGHLIGHTS

from notes by Bill Whitcraft

USER'S NIGHT: Nov. 13

After the usual introductory remarks and mention of the Rembrandt graphics program, Lee Lockwood introduced Kaypro representative Tony Mico; Tony swore everyone to secrecy and proceeded to unveil the new Kaypro 16, the long-awaited IBM-compatible 16-bit, 256K computer with a 10 mb hard disk. It includes the Micropro software bundle plus on-line tutorials and is able to run Flight Simulator, Lotus and other acid tests of compatibility. Price is \$3295.

John Callahan chaired the regular program. Suresh Shenoy discussed how he uses electronic mail in his business. Greg Trerotola described his use of Perfect Filer as an "expense filer" system for home accounting, keeping track of charge card expenditures and the like, and allowing listings in various desired formats on a periodic basis. A copy of his templates is on file in the software library. Mike Holmes told how he uses dBase II to manage a large folk festival. The last speaker was Dave Presberg, whose topic was application of dBase II in managing a sheep-growing operation. After a short discussion, the general consensus was that the first User's Night had been a great success and the format should be repeated at regular intervals.

SIGs: Nov. 27

Bob Waters listed items for sale: "The Peach" surge protectors (\$25); Xtrakey and the new release of Plu*Perfect Writer (\$32 ea.); a new dBase II book written by one of our members (\$20); and Maxell SSDD disks, 12 packed in a plastic case (\$22).

George Fischer discussed the hard copy library and mentioned the print-outs of bulletin board sessions. Charlie Bowen announced the acquisition of the Microcornucopia Diagnostics disk and reminded members that complete library listings are available on Disk 800.

Lee Lockwood conducted a lively discussion of the newly issued BCS buyers' guide. Virtually no one present would admit to having any plans to use it, and the general opinion seemed to be that the discounts were unexceptional. Members instead would like to see more group buys.

GAMES NIGHT: Dec. 11

Announcements: The first shipment of Qubie 1200-baud modems (\$275) is en route; see Mike Holmes if interested. George Gabrielson still has anti-glare screens for \$19.95. Charlie Bowen reiterated the library's policy on copying proprietary software. Bill Ansley mentioned some articles and publications of interest. Bob Waters displayed an inexpensive nylon Kaypro carrying case (\$29.95) with shoulder strap.

The speaker for the evening, young Seth Holmes, acquitted himself well in a discussion of two games from Software Toolworks. "Airport" is a flight controller game; "Word Wiggle" resembles "Boggle." He fielded questions comparing "Airport" to "Flight Simulator." ☐

QUERY

Bill Engstrom has found an inexpensive source of RAM chips: 256K x 1 (150 ns) for \$14.50. "Thirty-two of them + a \$200 board give you a Megabyte of speed memory," he writes. Anyone interested in a group purchase should contact him at: P.O. Box 226, Ashland 01721.

Members' Corner

ON MOVING FROM A KAYPRO TO A CLONE

by Nat Weiner

At some point, most KUG members are going to think about their next computer; do they need a new one, and, if so, what should it be?

At times, the single-sided disk drives of my Kaypro II just didn't hold enough data for my needs. In addition, certain programs and services I wanted were available to IBM and compatible users but not the CP/M market. For about a year, I wavered between upgrading my Kaypro, buying a new machine, and doing nothing. My decision was complicated by the fact that some people I work with were also considering buying a computer, and compatibility was a significant factor.

The passage of time and the evolution of the computer marketplace provided a solution to my dilemma. In the hope that it may be useful, let me share some of my current experiences with you.

About a month ago, I purchased a Leading Edge FXD computer. It is a very nice machine, and the conversion, despite a couple of twists, has gone quite smoothly. I am happy with the decision. In the process of describing the machine in some detail, I will indicate some relevant considerations in buying a new computer (be it DOS or CP/M), outline what is available, and provide some realistic price data.

The LE FXD is an IBM compatible DOS computer. It came with: a 10 meg. hard disk and a 360K floppy drive, a high resolution 12-inch amber screen, 256K of installed memory, one serial and one parallel port, and a built-in clock. The operating system is MS-DOS 2.1. The machine is supposedly on the highest level of compatibility with the IBM PC-XT. So far, I have had no software problems. The microprocessor is an 8088-2. It normally runs at 7.16 mhz, which makes the machine faster than a comparable IBM, but it can be cut back, with a switch, to 4.77 mhz, the IBM speed, for certain programs, mainly games, in which microprocessor speed is important. The keyboard is a Keytronic 5150, a top name. It is similar to the much maligned IBM keyboard, except that some of the worst layout features have been improved. The touch is light; I quickly learned to like the feel but not the layout.

The computer has a 130 watt power supply, a high capacity adequate for future expansion, a very noisy fan, and seven expansion slots, four of which are already used, leaving three for internal modems and the like. The installed disk controllers can handle another hard disk and a total of up to four floppies. The floppies can be a mix of 5 and 8 inch drives, including high density 5-inch floppies capable of storing up to 1.2 meg

each. In short, there is a lot of capacity for future growth.

The memory layout of the Leading Edge outstanding. The 256K of installed memory divided between 128K on the main board and 128K on an expansion board which has room for an additional 384K, or enough to take the machine up to 640K. The rule on memory is that you want all that you can afford and fit in. Memory chips have become quite cheap lately. Because of the already installed expansion board, it cost me less than \$250 to increase memory to 640K, which is the maximum that DOS will address.

The software situation has been an eye-opener. The machine comes bundled with DOS 2.11, (which is the right version to have), Basic, and the Leading Edge word processing program. The latter doesn't have some of Perfect Writer's more complex features, such as paragraph numbering or footnoting, but it is far quicker and easier to use. I also bought Nutshell, a file manager-data processing package distributed by Leading Edge. It is not a relational database like dBase II, but it is easier to use, has advanced features like variable and unlimited field size, and for many users may be the more desirable program. It makes a program like Perfect Filer eminently forgettable. Nutshell lists for \$150.

In general, commercial software for DOS is abundantly available that is either more advanced or easier to use, or both, than CP/M software. Prices are reasonable or falling rapidly. In addition, the "public domain" DOS library large, growing, and includes programs comparable to Modem 740, NSWP and the like that so improve CP/M. The DOS public domain sector also includes "freeware;" the program is free, but a "contribution" is requested if it proves useful. It is possible to build a nearly complete, highly serviceable software library entirely from public domain and freeware programs.

The machine and the new software are a joy to use. Things really move with the combination of the hard disk, 640K of memory and 7 mhz clock speed. Files come up in a few seconds. In one comparison, I formatted a 21-page legal brief on both the Kaypro and the Leading Edge, using the Kaypro and DOS versions of Perfect Writer. What took 246 seconds on the Kaypro took 35 seconds on the Leading Edge.

At first, the hard disk was intimidating. One wrong move can lose the equivalent of 52 Kaypro II disks full of information. However, after a few days of using the hard disk, floppies seem cumbersome and annoying.

There is a learning curve involved in moving to a new system and new or revised software. But the process is much easier than learning from scratch. DOS is neither greatly different nor harder to use than CP/M. In some ways it is better. No more warm boots.

Text and data files can be readily converted DOS format using Uniform on the Kaypro or comparable programs available in DOS. CP/M-80

programs do not work in DOS. In most cases, however, DOS versions of the same programs are available that will use the text and data files converted from CP/M. This is true, for example, for all of the Perfect series, dBase II and WordStar. In addition, some DOS programs are able to convert data and text files into their own format. For example, I was easily able to convert dBase II files into Nutshell files.

Originally, I planned to use what is called a "Baby Blue" co-processor board to run actual Kaypro CP/M 80 software on the new machine. That did not work out. The loss is minor because of the ease of conversion and the new software discussed above. For those who feel the need, at least one software program, 80mate, is available that is supposed to run CP/M-80 on the PC. Overall, converting old CP/M files was less of a cost and burden than expected.

The Leading Edge computer is made by Mitsubishi, one of Japan's top industrial and electronic giants. It is also sold in the US by Sperry Corp. under their name. Some peripherals, the keyboard, hard disk and controller, and possibly the monitor are supplied by others, but all are first class. Quality appears to be top-flight throughout. The guaranty on parts and labor is one year. Leading Edge is a Canton, MA

company, and therefore a local phone call for the hotlines that are helpful but seem to be getting busier.

The list price for the LE FXD is \$2,995. One local store regularly advertises it for \$2,395. I paid somewhat less. Leading Edge also offers a dual floppy model that lists for \$1,995 and color models, that support graphics, with list prices \$500 more than the monochrome models. All are comparably discounted. (The monochrome models have high resolution screens that do not support graphics, but aftermarket boards are available that permit both graphics and high resolution text.)

My actual total cost was less than the current list price of the Kaypro 10, \$2,795. Compared list price for list price, the LE FXD costs no more than the new Kaypro 16, even allowing for buying \$300 of software of your choice to offset the added items bundled with the Kaypro.

This is an example of the nature of the competitive challenge that Kaypro faces. It is also indicative of what is in the marketplace. Hopefully, it will be helpful to some of you confronted with an upgrade or even a first buy decision. □

Nat Weiner is a Norwood attorney.

A-prompt

Where our readers name names and tell what's what. All opinions herein expressed are solely those of the individual contributors and do not necessarily represent the official sentiments of The Boston Kugel, BOSKUG or the Boston Computer Society.

COMPUTER BOOK CLUBS

Readers of computer magazines are familiar with the omnipresent ads from a handful of computer book clubs. In the past year, I've overcome my aversion to book clubs and joined two: the Byte Book Club, associated with McGraw-Hill, and the Small Computer Book Club (Macmillan). With both, you receive a generous introductory "come-on," usually three books for \$1. You are then obligated to buy an additional three books during the year. I have no idea what percentage of subscribers uphold their end of the bargain, but I've had no trouble finding books I wanted. The selections from both clubs are fairly interesting. The books are offered at a 15-20% discount; after postage and handling, this vanishes, but I figure I'm still way ahead of the game because of the initial freebies. Even though I'm a satisfied customer, I can't really recommend the Byte club. Their selections are frequently

expensive hardcover editions of books that are available in paper. Some of their initial offers are earlier editions. Their record-keeping is atrocious; I'm still arguing with them about a book I returned last March.

The Small Computer Book Club has been a winner. For the initial "gift," customers can choose from Glossbrenner's three books on software and telecommunications, Russ Walter's Secret Guide, the Dwyer/Critchfield books on CP/M and BASIC, or many other intriguing titles. I'll have the catalogue with me at meetings. If you do decide to join, do it through me so I can get some more free books. Please.

--Karen Rockow

AN INTERESTING LOCAL ELECTRONIC PARTS STORE

Anyone needing generic computer and other electronic parts might do well to check out UNITECH, 20 HURLEY STREET, CAMBRIDGE, MA 02141, tel (617) 864-8324 [UNI-TECH]. Hurley Street is off of First Street, just opposite the center of the Lechmere store.

Unitech is newly opened and carries a mix of regular and "special purchase" merchandise, both new and "RFS," i.e. removed from sockets or used. The prices are very competitive with the ads in the back section of BYTE. The people seem pleasant, knowledgeable and honest.

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NEW LIFE FOR OLD KAYPRO IIs, Part Two

by Michael S. Drooker

The first article in this short series was concerned with the conversion of a KAYPRO II to the functional equivalent of a KAYPRO 4 using the Micro-Cornucopia (Micro-C) Pro-8 ROM. This article describes the addition of extra 5.25 in. disk drives to such a "Pro-8" machine.

The first question to be considered for such an addition is the location of the new drives. If two full height drives were removed from an old machine, there is room inside the case for four half-height units or for one full height and two half-height units. For any internal drive additions or changes, you should be able to use the existing signal cable by adding additional signal connectors. (I suggest doing this as the first step of any drive addition project as you will be able to test the new connectors on the existing drives before you have tinkered with any other hardware.)

However, if you fill the drive cage with drives, things will start to get warm inside, so you should plan to improve the ventilation of the machine. Installing a fan is a good idea. Of course, drives can also be mounted externally and receive signals through an elongated 34-wire ribbon cable.

Related to the location question is the consideration of the source of power for the drives. If you have an old machine and watch the screen image shrink when the Tandon drives light off, you know that disk drives do draw power from the internal power supply. However, presently available half-height drives tend to use less power than the older full height models. Four half height and "half power" drives should not put any more strain on your internal power supply than the drives they are replacing. It pays to study the power requirement specifications of any drive you are considering. Externally mounted drives may have their own power supply or may be powered from the internal supply, subject to the above consideration.

A hardware modification must be made to permit your KAYPRO to select drives C and/or D. The effect of this is to activate two lines in the existing 34-conductor signal cable which are not presently used. Micro-C sells a nifty plug-in, no soldering required, kit to do this, or you can do it yourself. What is required is the addition of a 16-pin decoder/driver chip and some wiring additions in the area of the 34-conductor disk drive signal header (see p. 18 of Micro-C No. 17 and p. 64 of Micro-C No. 20).

Having made the necessary hardware changes, there are a couple of software manipulations necessary to make the whole rig work. You must first relocate your operating system to a 63K system. If you use "straight" CPM this means using the MOVECPM.COM file. If you use ZCPR, you

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DISK DRIVE HEAD ALIGNMENTS

by Leo Wor.

There are a few questions people often ask about disk drive head alignments. Why? When or how often? What exactly is done?

WHY

If you own an automobile, you may have encountered an analogous situation. One day, you notice that your front tires show uneven wear and a mechanic reports that your car needs a front end alignment. This means that your tires are not pointing in a true, straight fashion; by adding shims and making adjustments, the situation is corrected.

The disk drive head must read a track within a specified range, or you could get an error message such as "BDOS Error on A or B, Bad Sector" or "I cannot read your diskette." When this happens, it generally means it's time for a head alignment checked by your local service center.

However, before you jump into your car and head for the repair shop, run through the following checklist of other potential sources of trouble: 1) If the diskette is in Drive A, make sure that it has been sysgened (has CP/M on it). 2) You may have a bad disk. Try another one in the suspected drive. 3) After a diskette change under CP/M, you should always do a Warm Boot regardless of which drive you are using.

WHEN AND HOW OFTEN?

Everything is relative and depends on usage. For the average user, I would suggest that head alignment be checked every six months. If the computer is used daily or very frequently, as in a business, I would advise a check every four to five months.

For peace of mind, users should practice preventive maintenance. Alignment problems may not be immediately obvious. The drives may format and read without error, but should the alignments start to drift out of tolerance, eventually you'll get errors. By the same token, if you actively swap diskettes with a fellow user, one of the units may get errors. This means either unit could need an alignment.

WHAT IS AN ALIGNMENT?

A disk drive head alignment can take between half an hour and several hours to complete. Most shops charge a flat rate; it should be in the neighborhood of \$75 per drive (either single or double-sided).

Without getting too technical, let me mention what else is done when a drive is brought in for head alignment. A speed check monitors the rotating speed of the motor which turns the media. A Clamp test ensures that the drive is

holding the diskette properly. An Azimuth check shows the relation of the angle of the head to the track it is over, similar to a needle on a record player. The Hysteresis test checks the movement of the head assembly and stepper motor to access the tracks as specified. Finally, the Index test validates proper functioning of the Index sensor.

I would like to clarify the advertisements of software packages that claim all these test can be performed with the cover left on; it's true. The results will display on the screen, telling you the status of each drive and head. However, if adjustments and alignments are needed, you must be knowledgeable about the ins and outs of your computer, especially the drives themselves. This is when you should call your Kaypro service center. ☐

Leo Wong runs Computer Maintenance Systems, 5 Henshaw St., Brighton (783-1877).

New Life... (Continued from p. 6)

will need a 63K version. If you use Plu-Perfect's CPM 2.2E, you will need the latest version (K-1C, available to all registered owners for \$5.00 plus your original installation disk) to run the PAGEREL.COM file. Having converted to 63K, you may then run the PRO8+SET.COM file (provided by Micro-C) to store the disk drive hardware setup information on the system tracks of your disk. This stores the new configuration of your machine, telling the computer which drives have 48 TPI and which have 96 TPI.

A final note on compatibility of this modification with other modifications: My Kaypro "II" now has two DSDD (400K) drives and two DSQD (800K) drives. The Micro-C speed-up modification has been made and the machine runs at 5 MHZ (a noticeable change from running at 2.5 MHZ). CPM 2.2E and Plu-Perfect Writer have been installed. These all work together. I have not tried using UNIFORM, MFDISK or any RAM-disk hardware. The only peculiarities I have found have to do with the disk motor turn-off function and the built-in SYSGEN function of some of the disk copy utility programs. At least one of these is related to CPM 2.2E, but neither are a significant operational problem to me.

Two years ago, back in computer ancient history, I bought a Kaypro-II "knowing" that since it was a single-board computer, it would not be suitable for modification, expansion, etc. Now I know better. The modifications described in these two articles provide a means to extend the useful life of an old machine by giving it increased disk storage capacity; they have postponed my need to purchase an additional machine. Depending on your needs and the use you make of your Kaypro, these modifications may be effective and most-effective for you, too. ☐

Mike Drooker is BOSKUG's answer to Tom Swift.

XTRAKEY CUSTOM

Xpert Software

8865 Polland Ave.

San Diego, CA; \$49.95 + \$3 shipping; \$32 at meetings

A software review by Bob Waters

Now that many of us are using complicated software programs that need multiple key strokes for controls--WordStar, Perfect Writer, dBase II, etc. the need for a keyboard redefinition program has become important. In the past, there have been some of these around. XtraKey from Xpert Software is totally compatible with PW, PC, and dBaseII, but NOT with Plu*Perfect Writer (a slight problem with BIOS).

XtraKey is a very comprehensive program, really three in one, that lets you define keys to represent strings of characters, escape functions, and any type of information that you may have to type in on a repetitive basis. As an example, in Perfect Writer, (Control X-Control C) could be designated to (Backslash A), or in Dbase II, (Modify Command) to (Backslash M). With Xtra-Key you now have "Function Keys" of your own choosing.

Bob Greenlee, the author, has even included a "Screen Dump" that lets you send what ever is on the CRT directly to the printer. This is particularly handy when you want to record something like the PF.DAT for your new printers.

You can also add definitions "on the fly" while you are in a program to eliminate repetitive typing. These "quickie" definitions can be saved or not as you wish. The XtraKey program disk comes already configured with files specifically arranged for WordStar, Perfect Writer, DbaseII, Perfect Calc, etc.

As a bit of extra frosting on the cake, you can use XtraKey with Submit to automatically load in a program from a cold-boot, and one XK file can be set up to call up a second file. The Kaypro Copy program also permits you to autoloading for both XtraKey and your program automatically. XtraKey works on ALL models of Kaypro computers from the old model II to the new 4-84 and model 10's.

The 70-page Instruction Manual is quite good, written in a try-to-be-easy fashion. I found only one glaring omission regarding the use of the X Shift Key, the most useful of all the programs. When an X shift key definition is used that includes a "pause," press the XShift Key rather than <CR>. This is to prevent a "toggle" action from occurring that would inhibit the next use of a redefined key. Also, when redefining a key, leave a space between the <INP> or <CR> and any text. ☐

Bob Waters is a founder and co-director of BOSKUG.

UNRAVELLING THE SECRET OF SUBMIT.COM

by Sarah Wernick

If you've ever ventured onto the user-unfriendly turf of your CP/M disk, with your user-hostile CP/M manual in hand, you may have encountered SUBMIT.COM. Try to run it and the machine snarls, "Error On Line 001 No 'SUB' File Present." Attempt to decipher what the manual has to say on the subject and you will fully appreciate the sado-masochistic overtones of the program's name. But believe it or not, this is a very handy and easy-to-use utility.

SUBMIT lets you execute a series of commands automatically, without having to type them one at a time. All you have to do is write a program that lists the commands, using your word processor. Don't let the word "program" put you off! As you will see below, all that's required is to type out the series of commands you want executed -- something you'd have to do anyway. The program is stored as a .SUB file (i.e. the file name must have the extension SUB). To run your program, simply type SUBMIT and the file name. Then sit back and watch the machine run through the series of operations.

Here's a simple example: a SUBMIT program that will (1) format a blank disk; (2) copy PIP.COM and STAT.COM to the newly formatted disk; and (3) check the directory of the newly formatted disk to make sure that PIP.COM and STAT.COM are there.

If you don't have 1K to spare on your CP/M disk, then create a disk that has the following, with at least 1K left over: COPY.COM, PIP.COM, STAT.COM, SUBMIT.COM. Put that disk (or the CP/M disk) in Drive B and your word processor in Drive A. Call up a new file called B:TEST.SUB. Then type in the commands you want the machine to execute, putting each command on its own line. The file MUST end with a carriage return -- i.e. before you save, make sure that the cursor is on the line below the last command. Here's how TEST.SUB would look:

```
copy
pip b:=pip.com
pip b:=stat.com
dir b: <CR>
```

As you can see, all you're doing is typing the commands just as you would have typed them after an A>. You can use upper or lower case letters. Don't forget to type a CARRIAGE RETURN after dir b: Save the program under the name B:TEST.SUB.

Now put the disk that has TEST.SUB, SUBMIT.COM, COPY.COM, PIP.COM and STAT.COM in Drive A, and put a blank disk in Drive B. Do a warm boot (CONTROL-C). At the A> type

```
A>SUBMIT TEST
```

Then press the CARRIAGE RETURN. SUBMIT will do a warm boot, then bring up COPY. Follow the menu to format the disk and then exit the program. As soon as you're back to CP/M, SUBMIT

will automatically move on to the next step, which is to copy PIP.COM to the new disk. When that's finished, it will copy STAT.COM. And then, as a grand finale, SUBMIT will show you the directory of Drive B. Simple and easy?

You can use SUBMIT to chain together any series of commands executed after an A>. For instance, you can play all your favorite games in order. Keep in mind that both SUBMIT and the .SUB file must be on the same disk. And if you've promised SUBMIT that CATCHUM will be on the disk in the B drive, make sure it's there, and not on the A disk. Otherwise you may get a complaining error message and find yourself warm booting out of your SUBMIT program.

Now that you've mastered Elementary SUBMIT, let's move on to SUBMIT with strings attached. Strings let you specify file names or extensions to be used in SUBMIT programs. Suppose, for instance, you want a SUBMIT program called ARCHIVE.SUB to (1) copy a particular file from a working disk onto an archival disk and (2) rename the file. (Actually, the easiest way to do this is with a housekeeping utility like DISK.COM or NSWP.COM, but let's forget that for the moment!) Obviously, you wouldn't want to rewrite ARCHIVE.SUB each time you wanted to go through these steps with a different pair of file names. Here's how a generic version of ARCHIVE.SUB would look:

```
pip b:=$1
ren b:$2=b:$1 <CR>
```

Don't forget the CARRIAGE RETURN at the end! (The purpose of the \$ signs will be clearer in a moment.)

Let's see how it works. Put your working disk in Drive A and your archival disk in Drive B. The A disk must have SUBMIT.COM, ARCHIVE.SUB and PIP.COM -- REN is a resident CP/M command, which is present on all disks with a CP/M track. A SUBMIT program involving strings also requires extra disk space equal to the size of the program -- 1K in this case.

Suppose that the file in question is currently called OLDNAME.DOC, and it's on your A disk. You want to copy it to the B disk and rename it NEWNAME.DOC. Here's the command form:

```
A>SUBMIT ARCHIVE OLDNAME.DOC NEWNAME.DOC
```

SUBMIT will substitute OLDNAME.DOC for \$1, and NEWNAME.DOC for \$2 everywhere that they appear in ARCHIVE.SUB. Try running ARCHIVE.SUB with the file names of your choice, making sure they are in the correct order -- i.e. the original name in the first position, and the new name in the second.

I use SUBMIT programs for a number of repetitive tasks, including disk formatting and correspondence (as described elsewhere in this issue). Next time you find yourself running through a batch of commands that you've run

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EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT HACKING: Part I

by Charlie Bowen

HOW TO CHANGE A PROGRAM

Modifying a program, as you may well suspect, is often a job for programmers only. However, once you begin collecting public domain programs and reading their docs, you'll soon begin to see instructions for modifying programs to make them more serviceable; sometimes, you even have to fiddle with a program before you can run it on your particular Kaypro. Such modifications as these are often well within the capability of non-programmers, since the esoteric information you need (what must be changed, and what it must be changed to) is provided--you just have to know the methods for making the changes. The writers generally assume you have this knowledge, however, and if you don't, you're left high and dry.

It's recorded that a man whose fancy sports car wasn't running smoothly brought it to a specialist mechanic. In five minutes, the car was purring, and the charge was \$150. Somewhat taken aback, the car owner requested an itemized bill. In due course came the following statement:

One (1) screw:	\$.25
Knowing where to put screw:	\$ 149.75
Total:	\$ 150.00

Your position now is just the reverse of the motorist's. It's as if you'd been handed the screw and told exactly where to insert it, but didn't know what a screwdriver was or how to use it. Fortunately, this kind of knowledge is a lot easier to acquire. This series of articles won't tell you how to analyze and reconstruct programs on your own, but it will tell you how to proceed when you know exactly what changes to make. As usual, some general information has to come first, since it's always an advantage (outside the government) to know at least a little about what you're doing.

SOURCE CODE AND OBJECT CODE

Any program a CP/M computer can run directly (a COM file) has to be in "machine language:" a sequence of electronic pulses, representable as binary numbers, that corresponds either to instructions for the central processing unit, or data to be manipulated by it.

Programmers seldom if ever write in machine language, however. Usually they write in either a "high-level" language like C or Pascal, or else in a "low-level" language called assembly language. A program written in a high-level language generally relies on a program called a compiler to translate it into machine language so it can be run. (Some

high-level languages are "intepreted" rather than "compiled," but for the sake of simplicity we'll leave them out of the discussion.)

Assembly-language programs mainly consist of instructions exactly parallel to the machine-language instructions the computer executes, but written in a code that human beings can remember and analyze more easily than they could a long sequence of binary numbers. Once an assembly-language program is written, another program called an assembler can read it and translate it into machine language.

No matter which process is followed, it starts with a set of instructions in a text file, written in some programming language, and it ends with a set of instructions in a command file, written in machine-language, that the computer can execute. This last file is given the extension "COM."

The original file the programmer wrote is called the source file, and the instructions in it (whether written in assembly language, or in C, Pascal, or whatever) are called the source code. The machine-language file that emerges at the end of the process is called the object file, and the binary instructions in it, the object code.

There are two basic ways to modify a program: one is to rewrite the code in the source file, if you have it, and repeat the assembling or compiling process. When the source code is in a higher-level language, you need the compiler program written for that particular language (and dialect), and that's too complex a business to go into here. If, however, the source file contains CP/M assembly-language code, you can, given sufficient information, modify and reassemble it, using certain programs supplied on your CP/M disk. The end product will be a slightly different COM file that incorporates the changes you wanted.

Alternatively, you can change the individual bytes in the object file. You don't need the source code for this, but you need really explicit instructions. This second method is called patching.

You're not always, or even usually, given a choice of which method to use. Patching instructions are somewhat more common, so we'll look at those first. We'll get around to reassembling in future installments of this series.

GENERAL INFORMATION ABOUT PATCHING

If the author offers you the chance to modify his program by working directly on the object code--the machine-language COM file--itself, his instructions must be perfectly explicit to be useful at all. There isn't any room for creative interpretation.

Every patching instruction that isn't defective has two numbers: an address and a value. A file, remember, is simply a sequence of numbers. If we count, starting at the beginning, the address of any given number is simply its place in the

sequence. Given an address and a value, we can find the byte that occupies that address and change its value to match the number we've been given. That's all patching is. You don't have to know what the numbers mean to do it effectively.

Until EDFILE came along, the only way to patch was to use DDT.COM, the CP/M debugging program. EDFILE makes the job a good deal easier, but not everyone has it, and everyone does have DDT. I'll give an example of each method, but that will have to wait for the next installment. First, it's necessary to say a bit more about the contents of patching instructions.

ADDRESSES

These are expressed as hexadecimal numbers, almost always with an H affixed: 103H, 10FH, 1A30H, etc. (The H isn't part of the number, just a reminder that the base is 16.) Because until recently nearly all patching of programs has been done with DDT, the addresses begin not at 0 or 1, but at 100H.

DDT changes programs not on the disk but inside the computer, and the addresses it responds to refer to cells in the computer's memory. The part of the memory occupied by a program while the computer is running it, or while DDT is examining it, begins at address 100H in virtually all CP/M systems, including Kaypros. So when DDT shows you the first part of the program, the address of the first byte is 100 instead of 0; the second byte is 101 instead of 1, and so on. Patching instructions always use this numbering system for addresses.

VALUES

DDT, EDFILE and other "dumping" programs display the value of each byte as a hex number. Whenever you enter a new value, it must also be in hex. These hex numbers always have two digits, that being exactly the range (00 through FF) that can be expressed in a single byte. Most of the time you'll be told exactly what value to enter at each address you're changing, but sometimes the instruction is to "patch non-zero"--i.e., to enter any value other than zero. 01 will do in such a case, but FF (the farthest possible from zero) is more traditional. (In binary terms, you're switching the byte from 00000000 to 11111111 for maximum contrast.)

Instructions will occasionally tell you to patch a particular address "false" or "true." This means exactly the same thing as zero (= false) or non-zero (= true).

Sometimes, however, you'll have to supply a number of your own: the number of drives in your system, or the number of a certain user area, or something like that. In that case, you'll have to convert the number from decimal to hexadecimal (unless it's nine or less: up to that point, decimal and hex numbers look the same, but above it, never). If you convert the numbers and get

everything written down before you start, you shouldn't have much trouble. BOSKUG Disk 1C contains information to help you deal fearlessly with hexadecimal numbers, and there's even a program on the same disk that will do the conversions for you.

GETTING READY TO PATCH

Besides making sure you know just what values you're going to insert at what addresses, make sure also that you have a backup copy of the program you're about to patch. EDFILE won't make a new copy of the program, it will change the one on the disk (and the same is ordinarily true with DDT, though you have a choice there). If something goes wrong, you don't want the only extant copy messed up. If you're using DDT, it will also be helpful to write down the file length in kilobytes.

O.K., if you're all ready to start, just hold that pose until the next issue. ☐

Charlie Bowen, master of suspense, is professor of Gaelic and English languages at U. Mass. Boston.

Submit.Com (Continued from p. 8)

through before, see if there isn't a way to get SUBMIT to do the work for you.

One important caution: once a SUBMIT program gets going, it's hard to stop. Sometimes SUBMIT programs even survive a cold boot! (Remember, you can always snatch your disks from the drives in an emergency.) So it's important to think through the consequences of your program. For instance, be very careful about using SUBMIT to erase files. Suppose, for example, the ARCHIVE program above had ended by erasing the original file after copying it to Drive B. That could be a real problem if PIP hadn't worked because of a bad disk. ☐

Sarah Wernick is a freelance writer who refuses to do anything that her Kaypro can do for her.

WHAT NEXT?

From *Bits N Bytes*, the newsletter of KUDO (Dayton, OH), comes this ergonomic tidbit.

To pamper your pinkie, stick a moleskin corn pad or foam corn cushion on your Control Key. The latter has a little hole in the center. "The cushion is about 1/8" thick which makes the Control-Key higher than the other keys and mu easier to 'find' when doing touch typing. And, the hole in the middle is just right for pinkie slam-dunks."

WORD PROCESSING

PERFECT CORRESPONDENCE

by Sarah Wernick

If you use Perfect Writer for correspondence, you have probably spent some time tinkering with format commands until you found the magic combination that would look right on your letterhead. This article explains how I've further automated my correspondence, with some help from fellow Kaypro and Perfect Writer user William Lockeretz, as well as the SUBMIT utility of CP/M and (optionally) SYNONYM.COM, a handy little public domain program available from our user library. (If you are not familiar with SUBMIT, read the article about it that appears elsewhere in this issue before continuing.)

Using the SUBMIT program listed below, I specify the name of the person to whom I'm writing and the file name of the form letter I want to use. All I have to do after that is type the text. The SUBMIT program finds the person's address, inserts it in the form letter, then formats the letter, prints two copies (original and file) and winds up the job by erasing the .FIN file. Next I type ENVELOPE or LABEL to print out a properly addressed envelope or mailing label. Should I need to enclose a self-addressed return envelope, I simply type RETURN.

I use a slightly different SUBMIT program when I'm writing to someone for the first time. That program begins by asking me for the person's name and address, then stores the information for all subsequent letters. Otherwise, it works the same way. If all this sounds appealing, here's how to set it up.

Your PW disk should have at least 12K free before you begin; if it doesn't, consider erasing PW.HLP (a barely-documented help file that is seldom discovered until after it is no longer heeded) or MENU.COM (see directions for using PW without the menu in the May/June 1984 issue of The Kugel). Another option is to decrease the size of the SWAP file PW.SWP -- there's a program in the user group library that can do this for you. When you've made room, copy PIP.COM and SUBMIT.COM onto the Perfect Writer disk, which will go in the A drive.

The B drive gets a disk with your address files and form letters. The first thing you'll have to do is to set up address files and revise your form letters to exploit Perfect Writer's ability to insert "strings" of characters (here those will be things like names and addresses) into reserved slots in the text. (This subject is covered in the PW manual in the chapter called "Tools for Form Letter Design," which you should review in order to understand what follows.)

My address files look something like this one, which I'll call DOE.ADD:

```
@STRING(name =  
"Jane Doe")  
@string(address =
```

```
"10 Commonwealth Avenue  
Boston, MA 02116")  
@string(salutation=  
"Miss Doe")  
@string(closing=  
"Sincerely yours")
```

When I tell the SUBMIT program I'm writing to Jane Doe, SUBMIT pips DOE.ADD into a dummy file called HEADING.MSS, which is included in my form letter. Here's a typical form letter -- called FORMLET.10 -- minus margins and other idiosyncratic details:

```
@INCLUDE(b:heading.mss)  
@STRING(date =  
"")  
@VALUE(date)
```

```
@VALUE(name)  
@VALUE(address)
```

```
Dear @VALUE(salutation),
```

```
@VALUE(closing),
```

Here's the SUBMIT program, which I call LETTER.SUB; \$1 stands for the name of the person I'm writing to; \$2 represents the file name of the form letter I'm using:

```
pip b:heading.mss-b:$1.add  
pip b:$1.mss-b:$2  
pw b:$1.mss  
pf b:$1.mss  
pp -2 -pause b:$1  
era b:$1.fin
```

If I were writing to Jane Doe with FORMLET.10, the command would be:

```
A>SUBMIT LETTER DOE FORMLET.10
```

LETTER.SUB begins by pipping Jane Doe's address file (DOE.ADD) into the dummy file HEADING.MSS. A new .MSS file, named DOE.MSS in honor of Jane, is set up to hold the letter. SUBMIT pips my form letter -- FORMLET.10 -- into that file, then summons it under Perfect Writer's editing program so I can write the text and insert the date. When the letter is saved, I exit the editing program. SUBMIT then formats the letter and prints two copies of it, pausing between pages. The .FIN file is erased at the end.

The printed letter -- complete with inserted date and text -- will look like this:

January 1, 1985

```
Jane Doe  
10 Commonwealth Avenue  
Boston, MA 02116
```

```
Dear Miss Doe,
```

```
Blah, blah, blah, blah, blah, blah, and blah.  
Blah, blah, blah, blah, blah, blah, and blah.
```

Sincerely yours,

My SUBMIT program for new letters, called NEWLET.SUB, begins by presenting me with a template, called HEADFORM.MSS, so that I can set up an .ADD file in the proper format for the person I'm writing to. The new file is stored in

the dummy file HEADING.MSS and also pipped into an .ADD file named for the person. After that, NEWLET.SUB is the same as LETTER.SUB.

```
pip b:heading.mss=b:headform.mss
pw b:heading.mss
pip b:$1.add=b:heading.mss
pip b:$1.mss=b:$2
pw b:$1.mss
pf b:$1.mss
pp -2 -pause b:$1
era b:$1.fin
```

Here's HEADFORM.MSS -- the template for the .ADD files:

```
@STRING(name =
"")
@string(address =
"")
@string(salutation=
"")
@string(closing=
"")
```

By the way, the @string statements can go on one line; however, I find it more convenient to fill in the blanks between the quotation marks if they're over on the left. Make sure the quotation marks don't include the carriage return, though!

When the letter is typed and the SUBMIT program has finished its job, HEADING.MSS still contains the name and address of the person I'm writing to. My formats for envelopes and labels use HEADING.MSS, which means I can address a label or envelope, without having to retype the information -- or even enter the editing program.

Here's my format (called ENVELOPE.MSS) for a standard business envelope, typed in 10 pitch (my default) on an envelope that doesn't require my return address:

```
@STYLE(paperwidth = 9 inches)
@STYLE(paperlength = 4 inches)
@STYLE(topmargin = 0 lines, bottommargin = 1
lines, leftmargin = 4 characters, rightmargin =
4 characters)
@STYLE(headerspacing = 0 lines, footerspacing =
0 lines)
@PAGEFOOTING()
@include (b:heading.mss)
@begin(address)
@value(name)
@value(address)
@end(address)
```

If I've just written to Jane Doe with my SUBMIT program, I can type the envelope by simply printing out this file under the print option of Perfect Formatter, since the correct address has already been placed into HEADING.MSS. The command form would be:

```
A>pf -p b:envelope
```

I have formats making similar use of HEADING.MSS for smaller envelopes, mailing labels and self-addressed return envelopes.

If you can spare another few K on your editing disk, you can further streamline the production of envelopes and labels by using SYNONYM.COM -- a nifty little public domain program that allows you

(Continued on p. 17)

PATCHING THE PATCH TO THE PATCH

by Mark De Guir

The September issue of Profiles contained an article on patching WordStar to run The Word Plus (instead of the absent SpellStar) at "S" on the NO FILE menu. The November issue, while correcting a mistake in the first article, added more and bigger mistakes. To save the revised version of WSOVL1.OVR, Kaypro 4 owners must type

```
SAVE 131 B:WSOVL1.OVR
```

To save WSMGS.OVR, the command is

```
SAVE 119 B:WSMGS.OVR.
```

Type Y when CP/M asks if it should delete the existing versions of these files.

Just what does this patch accomplish? It simply replaces, in hexadecimal code, the characters "SPELSTAR" with "TW " in the file WSOVL1.OVR, and "SpellStar" with "The Word +" in the file WSMGS.OVR.

That cryptic number in the SAVE command is the length of the revised file in 256-byte chunks ("pages"). WSMGS.OVR is a 30-kilobyte file, but remember that a kilobyte is 1024 bytes, so dividing 30,000 by 256 doesn't work. On entering DDT, it displays the last byte of the file and its location in hexadecimal. Getting the number of pages from that is like getting the number of dollars in a number of pennies, except in base-16 arithmetic: 7680H bytes is $(7 \times 16) + 6 + (8/16)$ or 118.5 pages. Hence SAVE 119 etc.

The November article's caution regarding making the patch and using special dictionaries needs some elaboration. If your text file name and special dictionary name (complete with drive letter if either is different from the logged-in drive) will fit in the seventeen spaces WordStar allots for a response to its prompt "Name of file to check/add to dictionary?" everything will be fine. A one- or two-letter dictionary name like D.CMP will always squeak by in seventeen characters, as long as it's on the logged-in drive. Keep the .CMP extension, though. The Word Plus gets fussy if it's not there.

Of course, one can still use a special dictionary by running The Word Plus from the R option of the NO FILE menu. Here again, specify a drive name for the text file or special dictionary if they aren't on the logged-in drive. (You won't have to specify which drive contains The Word Plus.)

What's the difference between the two methods? Users with keyboard redefinition programs might like to save a text and run it through The Word Plus all with a keystroke or two. Doing this requires using WordStar's CTRL- command to echo back a filename in a command

(Continued on p. 14)

KAMAS

Compusophic Systems
P.O. Box 5549
Aloha, OR 97007; \$175

A software review by Peter Bates

1 INTRODUCTION: Why an Outline Processor?

If someone told me a year ago I'd be using an "outline processor," I would have said, "Holy Proliferation, what next?" I already have two word processors, a style checker and a spelling checker. What more do I need to massage my text and clarify my thoughts?

2 BENEFITS & FEATURES: How it works

Before I answer that question, let me answer this one: KAMAS is the modest acronym for Knowledge and Mind Expansion System. Its command structure is different from anything I've ever seen, but not difficult to learn.

First, some terminology. KAMAS sees outlines as trees, with branches, stems, and leaves. Think of a major category in your outline as a branch, and the subdivisions as stems. Leaves are the text, up to 2420 bytes, that can be typed under each stem. You can do this through the "Outline Editor," which allows almost-full screen editing, or through the ROVE mode.

ROVE is the alternate way to move around KAMAS topics. Through a chain of one letter commands, you can focus on specific stems. For instance, if I typed GK INTRODUCTION, I would arrive at my INTRODUCTION stem, and if I typed EL, I could edit the leaf of text under it. This is preferable to the Outline Editor if you have to move around extremely large topics.

2.1 COLLAPSIBILITY: You can see the forest

Collapsibility is one of the most powerful features of Outline Processors. With KAMAS' Outline Editor, you can hide portions of your topic and see the major branches of the outline. What good is that? Anyone who's worked on a topic knows it's easy for things to get out of hand. Details overwhelm. With an Outline Processor, you can put them on hold and concentrate on the big stuff, like determining if a certain branch belongs farther up the outline, or if belongs at all.

2.2 EXPANDIBILITY: You can see the trees & leaves

With one key commands, you can expand your outline back to its original rotundity. X expands the next level down, B all the levels down. If you collapsed your outline to show only the major branches, and you placed the cursor at the top of

the outline, B would cause all the subsequent stems to appear. To show a leaf under a stem, just hit <CR>.

2.3 AUTOMATICALLY INDENTS

What does the outline processor do the word processor can't? First, it automatically indents subordinate stems with the ID command. If you have an outline with many levels, it's bothersome to reset your tabs every three spaces to create a new one. And could you place a leaf underneath that level with a word processor? By the time you got halfway across your screen, your text leaf would only be about 20 chars wide. Try it. It gets very messy.

2.4 DISPLAY: Time/Date Stamps

KAMAS "jexes" (job executes) some sophisticated functions, like SETDATE. If you jex this when you boot up, it will display the time and date you worked on your outline --if you invoke the SHOW or VIEW mode. (If you have a real time clock, all the better. The time and date will appear automatically.)

What, more modes? If you type SK, all the major keys--without leaves--will scroll down the screen. SO will scroll the complete outline, leaf texts included. A FORMAT mode changes display width, and justifies right, left, or full.

3 SUPPORT

3.1 DOCUMENTATION

You'll stagger when you see the documentation. It comes in two major blue volumes (700 pages total) and one slim white one. The adage "Simple to learn, difficult to master" applies to KAMAS. If you just want to learn outline processing, then the slim white one will do. Of course, if you're curious and open the large blue volume, be warned: You won't put it down for a while. It is both entrancing and bewildering.

Unless you already know at least one high level language and want to learn a new one--and I've been told KAMAS is only remotely like FORTH--stay away. This stuff is really difficult. Volume One introduces you to both KAMAS and its language, with separate chapters designated for each. Volume Two is for the heavyweights. I haven't begun to scratch its surface and probably never will.

3.1.1 PROGRAMMABILITY

3.1.1.1 MAKE YOUR OWN

KAMAS' powerful programming language allows you to add various options to ROVE. For example, if the system doesn't supply you with what you need for your project, you can probably fashion a

program yourself--if you're clever and compulsive. Type it into the SYSTOPIC file contained within KAMAS and add it to the USER option of ROVE.

3.1.1.2 OR TYPE ONE FROM THE NEWSLETTER

Luckily you don't have to know the programming language. For the last issue of Compusophic Systems' THE KAMAS REPORT, a user sent in a program called OUTLINE OUT. I typed it into SYSTOPIC and it supplied the full sectioning numbering for CP/M file output I used for this review. KAMAS comes with primitive file/printer output capacities, but this one's a vast improvement.

3.2 THE NEWSLETTER

If you purchase KAMAS, you get a year's subscription to THE KAMAS REPORT. This newsletter is one of the most helpful I've seen. It doesn't try to sell you new enhancements, nor hype your friends into buying the software. It's a well put together clear, non-technical publication.

3.3 CALL THEM UP

Both times I've called Compusophic Systems, president Adam Trent answered the phone. He took as much time as needed to solve my problem, and even gave me some code to speed up the SETDATE process and alter the margins default. He also mentioned the company has received so many programs from users they may soon offer them on disks at nominal cost.

3.4 HELP!

The help screens are also thorough. Like WordStar, KAMAS supplies three help levels. If you choose the default, two kinds of help screens come to your aid. If, at a certain prompt, you are uncertain of your options, you simply type ? and an option list appears. If you screw up, a message such as BADPARAM will pop up with the prompt MORE HELP? Y produces a short to wordy explanation of what you did wrong and how you can correct your transgression.

4 LIMITATIONS

Of course, KAMAS has its limitations. I'd like it to edit both leaves and branches on one screen. And perhaps an enhancement update will allow users to edit a title by simply moving the cursor across it, instead of typing ET and dealing with NEW TITLE, NEW SUBTITLE prompts. Other limitations are changeable, although not necessarily by you. Most of KAMAS is like New England Weather: If you don't like it, wait a while. Somebody will come up with a patch.

4.1 CAN'T DO SECTION NUMBERING

KAMAS does not automatically number its sections; you have to spend two hours typing in a program to get this feature. Even then, it will only mark your levels in decimal notation, which although classier, is not as familiar as the standard format.

4.2 CANNOT PRINT COLLAPSED OUTLINE

If you want to print your outline, you have to settle for the whole damn thing. This is inconvenient when dealing with executives and clients, who want to see the whole picture, not all those spindly branches and stems. The solution? Simply fire up a public domain screen dump program like DUMP@.COM and send the collapsed outline to your printer.

4.3 EDITING LIMITATIONS

Strangely, you cannot easily change a title from lower to upper case. And KAMAS' leaf editor's commands, loosely based on Perfect Writer's, do not allow you to program the numeric keyboard; for example, you cannot move one word ahead by pressing a numeric key. Instead, you have to move around with your arrow keys, a minor step backward in word processing power. Nor can you reform edited paragraphs.

5 CONCLUSION

Despite limitations, KAMAS gives you more than one bang for your 175 bucks. Perhaps organization is its biggest. I've always hated outlining, because it seemed too prosaic, even cumbersome. Now it's easy to move branches around, delete irrelevancies, see either the big picture or the brushstrokes. So far, I've used it in two articles and colleagues have noticed my thoughts seem to flow more clearly. □

Patching the Patch... *Continued from p. 12*

line, but WordStar doesn't recognize this command in the R option of the NO FILE menu. Also, through the patch, The Word Plus plops you back in the text file if you made changes. This is convenient if it now needs reforming. Before you enter The Word Plus, though, be logged onto the drive containing your text file. Otherwise, the corrected version will get copied to A: and you'll have to shuffle drives and files. Running from the R option leaves you at the NO FILE menu.

After seeing what a can of worms this innocent little patch can open, I understand why the MicroPro people were less than enthusiastic about helping Michael Yard (the author of the origin Profiles article) muck around in their code. But it works tidily, and served as a useful introduction to DDT for me. □

Director's Note (Continued from p. 1)

To my surprise, Tony lasted nearly two years at the job and did amazingly well at it. (For one thing, I've never heard a Kaypro dealer say an unkind word about him.) His sales figures were consistently among the best of Kaypro regions nationwide, according to people at Kaypro Corporate.

Then, about two weeks before Christmas, without warning, an envoy from Solana Beach dropped from the sky to tell Tony he had been fired and should clean out his desk. He was given no severance pay. Two checks the envoy brought with him -- money due Tony for sales bonuses and accrued vacation -- turned out to be unsigned and had to be returned to California.

The official explanation given Tony for this sudden act of execution was that his district's sales figures had fallen from fourth place to seventh since summer, and Corporate had decided that new, decisive action was called for. Tony himself believes that this was a smokescreen, since four of those districts had been combined into two during the time in question; he says that if this were taken into account, his district would now, in fact, rank third.

Curious about this, I talked with some Kaypro people in California who expressed great bitterness at Tony's treatment. All of them said emphatically that Tony's district's sales figures were not the issue, that, to the contrary, they were on the rise, and his performance overall was well up among the leaders. (In fact, all of Kaypro's original 13 district managers have now been fired. Tony was the last to go -- which must say something about his performance.)

Why, then, was he axed? We can only speculate. All the Kaypro people I talked to said that "personality" was the real issue. And all of them declined to state which "personality" they were talking about. But they invited us to guess.

It seemed doubly vindictive to us that Tony had to be dismissed summarily two weeks before Christmas, since at this writing his replacement still has not been hired and won't be in place until sometime in January. A more humane employer might have let him finish the year out on salary, while he looked for a new position. A rather callous goodbye to a hard worker, whatever the nature of the disagreement.

Tony Amico was one of BOSKUG's great supporters and was immensely popular among his dealerships. He was a tireless worker for Kaypro, on the road most of the time, and dealt with the company's chronic disorder and inconsistent policies with equanimity and good humor. We can't know Kaypro's inner workings, of course, but Tony's problem seems to have been only that, when asked for an opinion or a suggestion, he gave it. He was always, even when being critical, Kaypro's loyalist. In short, he was the best spokesman for the company we've ever met. And we've met the owners.

As this is being written, Tony's out looking

for a new position. We're sure he'll find a good one, if he can hold out long enough. Christmastime isn't exactly the best season of the year for job-hunting. While we're sure that the new local Kaypro emissary, whoever he or she turns out to be, will be supportive of BOSKUG, we are going to miss Tony a lot -- bad jokes and all.

So, we believe, will many at Kaypro.

EASYLINK UPDATE

Just as Perfect Writer isn't perfect, dealing with Easylink, the "free" E-Mail service offered through the BCS, hasn't been easy. Though Western Union has pumped mucho dinero into this noble experiment, and the system works fine, the billing procedures have been nothing more than experimental. As a result, members have, among other things, been sent mailgrams they didn't want (being charged 50 cents per gram) and have been billed for services they didn't use.

A recent apology from WU acknowledges these shortcomings and promises rectification. It came in the form of a mailgram to all BCS members. In case you didn't get it or threw it out, these are the highlights:

1. Messages sent to your mailbox will no longer be forwarded as mailgrams after 10 days. If you've been billed for any heretofore, ignore the bill. If you'd like to have this service restored, however, send a message to Easylink at 62900100 with your name, EID and request.

2. If you got a bill for services you didn't use, or one that's otherwise erroneous, ignore it. A programming problem in the billing system has resulted in mass mis-billing.

3. Every BCS member gets a \$20 credit. If your statement doesn't show this, you still have it. WU promises it will appear on future bills.

4. There is no charge for reading your mail box. There is no charge for reading any of the BCS categories on the FYI service.

5. Beginning immediately, do not use the 800 numbers to access Easylink or FYI. There are two Boston area direct access numbers. For 300 baud modems: 482-8744. For 1200 baud modems: 482-8715. If you do use the 800 numbers, you'll be billed a WATTS surcharge for each call.

To get from Easylink to FYI, at the PTS prompt type:

/EXIT FYI

To get back to Easylink, type:

/EXIT EASYLINK

6. A special Easylink "Hotbox" has been set up for BCS members to complain, comment or suggest to. Send all remarks to 62810917. There is no charge for this service. ☐

T/MAKER III

T/Maker Co.

2115 Landings Dr.

Mountain View, CA; \$275; T/M Database, \$175;

T/Spell, \$125; T/MUG Newsletter, \$35

A software review by Bob Harlow

Are you jealous of IBM PC users, who can get big integrated programs like Framework, Symphony and the like? Don't despair. The T/Maker company now offers an extension of their excellent T/Maker III (reviewed by Phil Marshall & myself in *The Kugel*, Vol. 1 No. 5).

For those who did not see that issue, T/Maker III is a package that includes, on one diskette, Word Processing, Spreadsheet, Bar Charts, List Processing and Data Transfer. Since last spring, I have used T/Maker III for 90% of my work, including all my word processing, and have found it an excellent program. (I have not used its spreadsheet, because it is fundamentally different from most other products and I haven't wanted to spend the time to master it -- see Phil's review).

The new extension is an extremely useful and flexible relational database manager, which makes T/Maker Integrated Software a full-featured personal productivity package.

Here is how it works, using the example of a hypothetical file of sales prospects for a small business.

FORMS DESIGN:

In T/Maker, input, output and transfer forms are made by creating files at the shell level. Example command:

WHAT NEXT? create <filename> edit

This puts you in the T/Maker editor, where you visually design your data entry form (and its record) in the following manner:

```
<form>
Prospect: [prospect      ]
Phone Number: [phone    ]
Last Contact: [last      ]
Notes: [lnote           ]
Next Contact: [next      ]
Notes: [nnote           ]
<end>

<record>
1 [prospect      ]
2 [phone        ]
3 [last         ]
4 [lnote        ]
5 [next         ]
6 [nnote        ]
<end>
<here>
```

You write this file just as any other document in word processing. Changes are made by simple editing. There are no special procedures as in

dBase or Perfect Filer. This I find of immense help when I develop, and most importantly revise, databases.

DATA ENTRY:

When you are ready to enter data, call up the file and add data using this command:

WHAT NEXT? get <filename> update

You are then presented with data entry screens just as you have drawn them at the top of the data file. Moving through them with commands much like those of the editor, you complete any or all of the fields. When you are done:

WHAT NEXT? save

T/Maker saves all these entries in the same file, beginning after the line containing the marker <here> as follows:

```
<here>
1 John Baxter
2 864-1212
3 84/09/22
4 Sent letter.
5 84/09/27
6 Call him, get a meeting.
1
2      (etc. etc. for thousands of lines)
3
```

Thus you have, in one file, data entry information, storage format, and the data itself. This file itself is ASCII text, and can be printed, edited, rearranged, sorted, etc. using the normal commands of T/Maker.

SORTING

Manipulating your data is quite simple. You can rearrange the order of files in the database by specifying the field name you want to sort on, and any sort options, as follows:

WHAT NEXT? get <filename> order
descending next

This command would call up your file and re-order it on the field "next." This means you get a rearrangement of the file of prospects to contact by descending order of the date of the next contact. To save it:

WHAT NEXT? rename <newname> save

The old file may be saved or deleted, as you wish.

REPORT GENERATION:

In T/Maker, reports are made by designing output forms in exactly the same way you design input forms. In fact, I usually just copy my input forms, editing them a little:


```
<form>
Next Contact: [next      ]
Phone Number: [phone    ]
Who: [prospect         ]
[nnote
<end>
```

<here>

Put this in a new file and you are ready to do the data transfer. Then select the records and conditions you want:

```
WHAT NEXT? select <filename> when last
<= 84/09/29
```

Note: Even as a string, 84/09/27 is "less" than 84/09/29, so that record will pass the criteria.

The result is that you get a document fully ready for printing, editing, additional formatting, etc.:

```
Next Contact: 84/09/27
Phone Number: 864-1212
Who: John Baxter
Call him, get a meeting.
```

If you want a different format or sort, just draw a different output form and load it using the "SELECT" and "WHERE" commands.

CAPACITY:

With any integrated software package, what you get in flexibility and ease of use, you pay for in memory. If your T/Maker data files get larger than 25K or so they won't fit in working memory and you will have to develop tricks to process your files a line at a time with saves, or in batches. This you can do with T/Maker commands, but it takes some learning.

Because of the way the data is stored, i.e. as ASCII text, one field per line (usually), files get large very fast, and processing then becomes slow. This is the trade-off you make as against programs like DBase II or Perfect Filer. Those programs process fairly rapidly, but take a lot of patience or skill to set up, qualities not all of us possess.

SUMMARY:

The addition of a true relational database management system to T/Maker's already successful word processing package makes it a great vehicle for small business and personal applications. I can't stress enough the convenience of having all your applications on one diskette, and all your work in the same file format, namely text files.

To use it, however, be prepared to spend quite a few hours becoming familiar with it. You can begin to use T/Maker right away with good productivity; to master it, like any other integrated software package, will take some adjustment. I have found that adjustment, which is still progressing, to be worth while. ☐

Bob Harlow is a freelance video producer/director.

SWAP SHOPPE ads are free to BOSKUG members; there is a \$5 charge for non-members or commercial ventures. Ads should be 50 words or less. The Kugel accepts no responsibility for the quality, terms or condition of any product or service advertised.

THE COMPUTER TUTOR: Turn your \$1500 paperweight into the tool you hoped it would be. We can help get your business up and running by training you (or your staff) to use the bundled software, or by recommending special application packages. Training is done at your office, on a one-to-one or small group basis. Contact Mike Holmes, 15 Arnold Place, New Bedford, MA 02740 1-993-0156.

KAYPRO II FOR SALE; 2 191K drives. Software includes WordStar, Perfect series, Profit Plan, The Word +, M/S-Basic, Superterm, Crosstalk. Epson RX-80 printer, J-Cat 300-baud modem, all documentation. \$1400 for the "bundle." [617] 993-3265 after 4 p.m.

COMPUTER MAGS: Lowest rates. Popular Computing, \$10.50, Byte, \$18. Send checks to: Karen Rockow, 345 Harvard St. #3B, Cambridge, MA 02138; [617] 354-0124. ☐

----- Perfect Correspondence (Continued from p. 12) -----

to give a name to any command line in CP/M. Using SYNONYM.COM I've changed the pf command above to ENVELOPE. You'll need 1K for each such definition, in addition to 1K for SYNONYM.COM. The user library has both SYNONYM.COM and SYNONYM.DOC, which provides all directions on its use. ☐

Books Received for Review

Steven & Larry Doroff, WORDSTAR IN ENGLISH I. Chicago: English I Computer Tutorials, 1984; 184 pp.; \$12.95.

Walter E. Ettlin, WORDSTAR MADE EASY. 2nd. ed. Berkeley Osborne/McGraw Hill, 1982; 164 pp.

Alan Freedman, dBASE II FOR THE FIRST-TIME USER. Culver City, CA: Ashton-Tate Publishing Group, 1984; 174 pp.; \$19.95.

INFOWORLD'S ESSENTIAL GUIDE TO CP/M. NY: Harper & Row, 1984; 264 pp.; \$16.95.

Russ Walter, THE SECRET GUIDE TO COMPUTERS, Vol. 2. Boston, 1984; 399 pp.; \$14. ☐

HOW TO DOWNLOAD A FILE FROM THE BOSKUG RCP/M

by Lee Lockwood

[The following instructions assume that you are using a modem program that supports the Xmodem file transfer protocol. All versions of the public domain program MODEM7 do so. So, if you have MDM740 (preferred) or any other program that begins MDM7xx, or SMODEM, KMDMxxx, AMODEM, MDM9xx, etc., you're in good shape. If you're using a commercial program, be sure it supports the Xmodem, or Christiansen protocol. For example, MITE, Crosstalk and many others do.]

Once you've logged on, typed your name, address and password, and read all the official bulletins, do the following:

1. At the command prompt (where you're given a choice of several letters or ? for Help), type a C for "go to CP/M."

2. The new prompt will read "A0:KAYPRO>" This means that you are on Drive A, User 0 of the RCP/M, and that this user area is devoted to programs made or configured for the Kaypro.

[There are two drives, A and B. At present, we only have five user areas open on each drive; this will be expanded to 10 later on.]

3. To see what's on the entire RCP/M, type

"SYSMAP." This gives a "map" of all drives and user areas. (For help in using the system, type "SYSHELP.")

4. To see what files are on A0 (where you're still logged), type "D" or "DIR." You'll get an alphabetized directory, along with info about the size of each file and how long it would take to transmit it at your baud rate.

5. To log onto another drive/area, type its name. Thus, if you wanted to go to B2, where the modem programs are, you'd simply type "B2:". (Don't forget the colon.)

The prompt "B2:MODEMS>" will now appear on your screen.

WE RECOMMEND THAT YOU TURN ON YOUR PRINTER AT THE VERY BEGINNING WITH A CTRL-P, SO THAT YOU CAN KEEP A RECORD OF WHAT YOU'VE DONE. IT'S ALSO USEFUL TO PRINT OUT A DIRECTORY OF EACH USER AREA YOU LOG ONTO, WHICH MAKES IT MUCH EASIER TO PICK OUT FILES TO DOWNLOAD.

Now, assuming that you've found a file you want, here's how to download it:

1. Telling the RCP/M to send a file

->->

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At the A0-prompt, you type:

XMODEM S FILENAME.EXT<CR>

The RCP/M will reply with the following information:

XMODEM v10.2
File open: 12 records (2k)
Send time: 0 mins, 15 secs at 1200 bps
To cancel: use CTRL-X numerous times

XMODEM will now wait for a signal from your own computer telling it that you are in the receiving mode and to begin sending the file.

2. Telling your computer to receive the file

The host computer is ready. But the transfer cannot take place until you give your own computer instructions to prepare to receive the incoming file.

You must first disengage from the host computer by typing whatever control character your modem program uses to return to the COMMAND mode. (In MDM740, for example, you type ^E.)

COMMAND: R [D:]FILENAME.EXT <cr>

(The command to receive a file is the same for almost any version of MODEM7, including MEX.)

Your computer will reply with a message something like this (depending on which modem program you're using):

File open, ready to receive
CRC in effect
Received #

Your computer has opened the file and sent a message to the RCP/M that it's waiting for data. The transfer should now begin. As each sector of the file being sent is received, its number will appear opposite the # sign on your screen. Depending on how your computer is set up, every 16, 32 or 64 sectors received will be written to disk automatically, and the transmission will pause briefly while this is being done.

When all the transmitted data has been received and recorded, your screen will show a message "[Transfer Completed]". At this point, you can download another file if you wish. Please note that if you are downloading an .LBR file, you must extract its members using either LSWP (easiest), NULU or LU. To get a directory of a library, type **LDIR LIBNAME** (you may omit the extension, but don't forget to leave a space after LDIR). Files with .OBJ extensions must be re-named with the extension .COM before they will operate.

In order to upload a file to an RCP/M, reverse the process. In step #1 you would type **XMODEM R FILENAME.EXT** (telling it to receive the file

you're about to send); in step #2 you would type, at the COMMAND prompt, **S [D:]FILENAME.EXT** (commanding your own computer to send the file). □

A-prompt *Continued from p. 5*

If they don't carry an item but see a reasonable demand, they might decide to stock it, e.g. Z-80-B's, disk drives, etc. Mail order's not bad, but good local outlet is better.

--Nat Weiner

SOFTWARE CENTRE, Burlington, MA

If you know exactly what software you want, and will never need support or questions answered, then mail order is the route to go.

If you need help in deciding, or getting up and running, finding a vendor who knows what he has (let alone how to use it) will make Odysseus' troubles seem minor by comparison. One bright spot in all my searching has been the Software Centre in Burlington, just across the road from the Burlington Mall.

I needed a graphics package for my other computer (more about that next month) and stopped in on a weekday afternoon. All of the computers (perhaps half a dozen) were occupied by prospective customers, trying out various software packages. The salespeople were knowledgeable, helpful, and willing to go through old issues of magazines, looking for "...a package I remember reading about several months ago." In my home town, the sales people don't even know what magazines they carry.

Finally, they offered to open any package I wanted, and let me read the documentation and try the program. This is a level of assistance I have not encountered before or since.

Needless to say, it would be patently unfair to go there, take up their time and then buy elsewhere. If you need service, expect to pay for it; but the savings over buying a totally wrong package is certainly worth the few extra dollars such a full service house must charge. I have had no experience with other Software Centre branches; I certainly hope this reflects company policy.

--Mike Holmes

□

AW SHUCKS DEPT.

If you own a CP/M-based Kaypro, you will not be able to run the Mr. Boston Official Micro Bartender's Guide. The \$49.95 software features "over 1,000 delightful drink recipes" in a menu-driven program with a washable presentation cover. It's available for the Apple, IBM and compatibles and Commodore 64. You needed a reason to buy a Kaypro 16?

MEETING SCHEDULE

BOSKUG meets at the Minuteman Regional Vocational Technical School, Rte 2A, Lexington, just west of Rte. 128. From Harvard Sq., take bus #528; the school is a short walk from Hanscom Field. Follow signs to the I.R.C. room.

LIBRARY opens at 6:30 p.m. MEETINGS begin 7:15. PROGRAMS start at 8:00 sharp.

- Jan. 8 : ACCESSORIES FOR THE KAYPRO
A presentation of several hardware "add-ons," coordinated by Bob Waters.
- Jan. 22 : SIGs
- Feb. 5 : PUBLIC DOMAIN SOFTWARE
Speakers: Charlie Bowen & Lee Lockwood.
- Feb. 19 : SIGs
- Mar. 12 : Bob Harlow and Bill Ansley present a progress report on the BOSKUG Software Evaluation Group.
- Mar. 26 : SIGs
- April 9 : Dave Hoag on "Configuring Your Printer for Perfect Writer."
- April 23 : SIGs
- May 14 : Leo Larkey discusses graphics programs.
- May 28 : SIGs
- June 11 : PARTY (location to be announced)
- June 25 : SIGs

BOSKUG Phone Book

DIRECTORS: Lee Lockwood 965-6343
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(Software) Charlie Bowen 332-2931
(Paper) George Fischer 774-4307
PROGRAMS: Suresh Shenoy 862-5173
S.I.G.S: John Callahan 653-9329
SOFTWARE
EVALUATION: Bob Harlow 776-9447
NEWSLETTER: Karen Rockow 354-0124

KAYPRO TECH SUPPORT:
Software (619) 481-3920
Hardware (800) 5-KAYPRO
MICROPRO: (415) 499-8320
B.C.S. INFO LINE 227-0170
B.C.S. BULLETIN BOARD 227-7986
BOSKUG BULLETIN BOARD 232-0919

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